Butler, Douglas

PLU5 4/18/04

From:

**PLUS** 

Sent:

Monday, April 05, 2004 11:55 AM

To:

Butler, Douglas

Subject:

PLUS Results for 10677888

Here are the PLUS search results for 10677888.

This search was prepared by the staff of the Scientific and Technical Information Center, SIRA. If you have questions or comments about this search, please reply via email to PLUS@uspto.gov.



10677888\_LIST.txt











10677888\_CLSTITLES.t



#### 10677888 LIST

PLUS Search Results for S/N 10677888, Searched April 05, 2004

The Patent Linguistics Utility System (PLUS) is a USPTO automated search system for U.S. Patents from 1971 to the present. PLUS is a query-by-example search system which produces a list of patents that are most closely related linguistically to the application searched. This search was prepared by the staff of the Scientific and Technical Information Center, SIRA.

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Page 3

Princip (Sp

## 10677888\_CLS

Most Frequently Occurring Classifications of Patents Returned From A Search of 10677888 on April 05, 2004

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17 123/321
    123/322
 4
    123/320
   188/158
    188/271
    192/216
    303/20
    303/3
    188/296
    477/92
 2
    73/118.1
     73/862.191
 2
     74/336R
 2
    91/420
 2
 2 123/323
 2 180/169
 2
    181/256
    188/154
 2
 2
    188/267
 2
    188/62
 2
    303/113.2
    303/152
 2
    303/7
 2
    310/77
 2
 2 701/70
Cross-Reference Classifications
 10 123/90.16
  6 123/323
  6 188/291
  6 477/92
 5 123/90.12
  5 188/161
  5 192/221
  5 192/222
  5 310/105
  4 123/322
  4 188/158
  4 188/267
  4 188/290
  4 188/296
  4 303/15
  4 310/93
  3 123/321
  3 180/170
  3 188/164
  3 188/294
  3 192/12A
  3 192/216
  3
    303/3
  3 701/51
  2
    60/460
  2
     60/493
     91/421
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Original Classifications

```
2 123/198DB
  123/568.14
2
  180/197
2
  180/308
2
  181/272
2
   188/264F
2
   188/273
2
   192/219
2
   303/125
2
   303/155
2
   303/20
2
   303/7
2
   310/76
2
   475/113
2
   477/110
2
   477/185
2
   477/71
   477/86
2
   701/53
2
   701/87
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## Combined Classifications

20 123/321 11 123/322 11 123/90.16 9 477/92 123/323 8 8 188/158 188/291 7 7 188/296 7 192/216 7 303/3 6 188/267 303/20 6 5 123/320 5 123/90.12 5 188/161 5 188/290 5 192/221 5 192/222 5 310/105 5 310/93 188/164 188/271 4

4 701/51 3 123/568.14 3 180/170 3 188/294

303/15 303/7

4

3 192/12A

3 303/113.2

3 303/113.2

3 475/113

3 701/70 2 60/460

2 60/4602 60/493

2 60/493

2 73/118.1

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# 10677888\_CLS

73/862.191
74/336R
91/420
91/421
2 91/421
2 123/198DB
2 180/169
2 180/308
2 181/256
2 181/272
2 188/154
2 188/264F
2 188/273
2 188/295
2 188/62
2 188/71.6
2 192/219
2 192/3.3
2 192/3.31
2 303/125
2 303/13
2 303/155
2 310/76
2 310/77
2 477/110
2 477/185
2 477/71
2 477/86
2 701/33

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701/48 701/53 701/87

10677888\_CLSTITLES
Titles of Most Frequently Occurring Classifications of Patents Returned
From A Search of 10677888 on April 05, 2004

20	123/319	123	: INTERNAL-COMBUSTION ENGINES
11	123/322 Class 123/319 123/320 123/321 123/322	123	OR, 4 XR) : INTERNAL-COMBUSTION ENGINES ENGINE SPEED REGULATOR .Responsive to deceleration mode (e.g., engine acting as a brake)Valve timing altering means (e.g., axially sliding cam shaft)Electrical means adapted to alter valve timing
11	123/90.1	123	OR, 10 XR) : INTERNAL-COMBUSTION ENGINES POPPET VALVE OPERATING MECHANISM .With means for varying timingCam-to-valve relationship
9		477	OR, 6 XR) : INTERRELATED POWER DELIVERY CONTROLS, INCLUDING ENGINE CONTROL TRANSMISSION CONTROL With brake control
8		123	: INTERNAL-COMBUSTION ENGINES ENGINE SPEED REGULATOR .Responsive to deceleration mode (e.g., engine acting as a brake)
8		188	: BRAKES FRICTIONAL VIBRATION DAMPER
7	188/291 Class 188/266 188/290 188/291	(1 188	OR, 6 XR) : BRAKES INTERNAL-RESISTANCE MOTION RETARDER .Using a rotary-type fluid damperIncluding clutch
7	188/296 Class 188/266 188/290 188/296	(3 188	OR, 4 XR) : BRAKES INTERNAL-RESISTANCE MOTION RETARDER .Using a rotary-type fluid damperDriving radial vanes which cause toroidal flow of brake fluid

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10677888_CLSTITLES
7 192/216 (4 OR, 3 XR)
Class 192 : CLUTCHES AND POWER-STOP CONTROL
       192/215
                    .Internal resistance brake
       192/216
               (4 OR, 3 XR)
  303/3
       Class
               303 : FLUID-PRESSURE AND ANALOGOUS BRAKE SYSTEMS
       303/2
303/3
                     MULTIPLE SYSTEMS
                     .Fluid pressure and electric
 188/267
               (2 OR, 4 XR)
       Class 188 : BRAKES
       188/266
                     INTERNAL-RESISTANCE MOTION RETARDER
       188/267
                    .Using magnetic flux
               (4 OR, 2 XR)
  303/20
       Class
               303 : FLUID-PRESSURE AND ANALOGOUS BRAKE SYSTEMS
       303/20
                     ELECTRIC CONTROL
               (4 OR, 1 XR)
  123/320
       Class 123 : INTERNAL-COMBUSTION ENGINES
       123/319
                    ENGINE SPEED REGULATOR
                    .Responsive to deceleration mode (e.g., engine
       123/320
                        acting as a brake)
 123/90.12
               (0 OR, 5 XR)
       Class 123: INTERNAL-COMBUSTION ENGINES
       123/90.1 POPPET VALVE OPERATING MECHANISM 123/90.12 .Hydraulic system
 188/161
                (0 OR, 5 XR)
       Class
               188 : BRAKES
       188/381 FRICTIONAL VIBRATION DAMPER
                    .Electric
       188/158
       188/161 ..Electromagnet
 188/290
                (1 OR, 4 XR)
       Class
               188 : BRAKES
        188/266 INTERNAL-RESISTANCE MOTION RETARDER
       188/290
                    .Using a rotary-type fluid damper
  192/221
               (0 OR, 5 XR)
       Class 192: CLUTCHES AND POWER-STOP CONTROL
               TRANSMISSION AND BRAKE
       192/215
       192/218
                    .Motor vehicle
                   ..Fluid operated
       192/221
               (0 OR, 5 XR)
  192/222
       Class 192 : CLUTCHES AND POWER-STOP CONTROL
       192/215 TRANSMISSION AND BRAKE
       192/218
                    .Motor vehicle
       192/222
                    . Electromagnetic
               (0 OR, 5 XR)
  310/105
       Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
                DYNAMOELECTRIC
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Page 2

...Magnetic field type

.. Torque-transmitting clutches or brakes

310/10

310/40R 310/92

.Rotary

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10677888 CLSTITLES
        310/105
                      ....Induced or eddy current type
5 310/93
                (1 OR, 4 XR)
        Class
                310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
        310/10
                    DYNAMOELECTRIC
        310/40R
                   .Rotary
..Torque-transmitting clutches or brakes
        310/92
        310/93
                     ...Brake type
  188/164
               (1 OR, 3 XR)
        Class 188 : BRAKES
        188/381 FRICTIONAL VIBRATION DAMPER 188/158 .Electric
        188/161
                    ..Electromagnet
                     ... Magnetic circuit
        188/164
  188/271
               (4 OR, 0 XR)
        Class 188 : BRAKES
        188/266
                  INTERNAL-RESISTANCE MOTION RETARDER
                    .Combined with surface-friction brake
        188/271
               (0 OR, 4 XR)
   303/15
       Class 303 : FLUID-PRESSURE AND ANALOGOUS BRAKE SYSTEMS
       303/13 MULTIPLE CONTROL .Fluid and electric
                (2 OR, 2 XR)
  303/7
       Class 303 : FLUID-PRESSURE AND ANALOGOUS BRAKE SYSTEMS
        303/5 MULTIPLE FLUID-RECEIVING DEVICES 303/6.01 .Multiple motors
        303/7
                     ..Sectional train
  701/51
                 (1 OR, 3 XR)
        Class
               701 : DATA PROCESSING: VEHICLES, NAVIGATION, AND
                        RELATIVE LOCATION
        701/1
                      VEHICLE CONTROL, GUIDANCE, OPERATION, OR
                          INDICATION
        701/51
                      .Transmission control
  123/568.14
                (1 OR, 2 XR)
               123 : INTERNAL-COMBUSTION ENGINES
        Class
                     CHARGE FORMING DEVICE (E.G., POLLUTION CONTROL)
        123/568.11
                      .Exhaust gas used with the combustible mixture
                          (e.g., emission control Exhaust Gas Recirculation (EGR)
                          valve)
        123/568.14
                      .. Internal exhaust gas recirculation (e.g.,
                         exhaust gas retained in the combustion chamber)
 180/170
                (0 OR, 3 XR)
       Class
               180 : MOTOR VEHICLES
        180/170
                     WITH MEANS RESPONSIVE TO SPEED OF VEHICLE FOR
                        MAINTAINING SPEED AT, OR PREVENTING IT FROM EXCEEDING, A
                         PARTICULAR VALUE
3 188/294
                (0 OR, 3 XR)
       Class 188 : BRAKES
                INTERNAL-RESISTANCE MOTION RETARDER .Using a rotary-type fluid damper
        188/266
        188/290
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Page 3

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```
10677888 CLSTITLES
        188/293
                       ..Driving relatively moving element which
                           causes flow of brake fluid
        188/294
                       ...With means for regulating movement of
                          element
   192/12A
                 (0 OR, 3 XR)
        Class 192 : CLUTCHES AND POWER-STOP CONTROL
        192/12R
                      CLUTCH AND BRAKE
        192/12A
                      .Internal resistance
   303/113.2
                 (2 OR, 1 XR)
                303 : FLUID-PRESSURE AND ANALOGOUS BRAKE SYSTEMS
        Class
        303/121
                      SPEED-CONTROLLED
        303/113.1
                      .Having a valve system responsive to a wheel
                           lock signal
        303/113.2
                      ..With traction control
  303/152
                 (2 OR, 1 XR)
                303 : FLUID-PRESSURE AND ANALOGOUS BRAKE SYSTEMS
        Class
                     SPEED-CONTROLLED
        303/121
        303/152
                      .Regenerative brakes
3 475/113
                 (1 OR, 2 XR)
        Class
                475 : PLANETARY GEAR TRANSMISSION SYSTEMS OR
                        COMPONENTS
        475/31
                      FLUID DRIVE OR CONTROL OF PLANETARY GEARING
        475/91
                      .Fluid resistance inhibits relative rotation
        475/113
                      .. Impeller-turbine type fluid unit used as
                         brake
3 701/70
                 (2 OR, 1 XR)
        Class
                701 : DATA PROCESSING: VEHICLES, NAVIGATION, AND
                        RELATIVE LOCATION
        701/1
                      VEHICLE CONTROL, GUIDANCE, OPERATION, OR
                          INDICATION
        701/70
                      .Indication or control of braking,
                         acceleration, or deceleration
    60/460
                 (0 OR, 2 XR)
                060 : POWER PLANTS
        Class
        60/325
                      PRESSURE FLUID SOURCE AND MOTOR
        60/459
                      .Condition responsive control of motive fluid
                          flow
        60/460
                      .. Holding or braking valve in motor exhaust
                         line controlled by pressure in motorfeed line
                (0 OR, 2 XR)
060 : POWER PLANTS
    60/493
        Class
        60/325
                      PRESSURE FLUID SOURCE AND MOTOR
        60/493
                      .Valve means reverses flow from pump to
                         reversible rotary motor
2
    60/599
                 (1 OR, 1 XR)
        Class
                060 : POWER PLANTS
        60/597
                      FLUID MOTOR MEANS DRIVEN BY WASTE HEAT OR BY
                           EXHAUST ENERGY FROM INTERNAL COMBUSTION ENGINE
        60/598
                      .With supercharging means for engine
        60/599
                      .. With means to change temperature of
                         supercharged flow
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#### 10677888 CLSTITLES

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2
    73/118.1
                 (2 OR, 0 XR)
        Class
                073 : MEASURING AND TESTING
        73/116
                      MOTOR AND ENGINE TESTING
        73/118.1
                      .Testing auxiliary unit
    73/862.191
                 (2 OR, 0 XR)
                073 : MEASURING AND TESTING
        Class
        73/862
                      DYNAMOMETERS
        73/862.08

    Responsive to torque

        73/862.191
                      ..During transmission to an external load
    74/336R
                 (2 OR, 0 XR)
        Class
                074 : MACHINE ELEMENT OR MECHANISM
        74/640
                      GEARING
        74/325
                      .Interchangeably locked
        74/333
                      .. Combined gear and clutch
        74/334
                      ...Preselector
        74/336R
                      ....Speed responsive
                 (2 OR, 0 XR)
2
    91/420
        Class
                091 : MOTORS: EXPANSIBLE CHAMBER TYPE
        91/418
                      WITH MOTIVE FLUID VALVE
        91/420
                      .Contracting chamber exhaust valve controlled
                         by expanding chamber pressure or flow
2
    91/421
                 (0 OR, 2 XR)
                091 : MOTORS: EXPANSIBLE CHAMBER TYPE
        Class
        91/418
                      WITH MOTIVE FLUID VALVE
                      .Expanding chamber inlet controlled by
        91/421
                         contracting chamber pressure or flow
 123/198DB
                 (0 OR, 2 XR)
        Class
                123 : INTERNAL-COMBUSTION ENGINES
        123/198R
                     ACCESSORIES
        123/198DB
                      .Fuel cut-off
  180/169
                 (2 OR, 0 XR)
        Class
                180 : MOTOR VEHICLES
        180/167
                      WITH MEANS FOR CONTROLLING OPERATION RESPONSIVE
                          TO ELECTROMAGNETIC RADIATION, MAGNETIC FORCE, OR SOUND
                          WAVES RECEIVED FROM SOURCE, OR REFLECTED FROM OBJECT OR
                          SURFACE, LOCATED APART FROM VEHICLE
        180/169
                      .Radiation, force, or waves reflected from
                         external object or surface
  180/197
                 (0 OR, 2 XR)
                180 : MOTOR VEHICLES
        Class
        180/197
                      WITH MEANS FOR DETECTING WHEEL SLIP DURING
                         VEHICLE ACCELERATION AND CONTROLLING IT BY REDUCING
                         APPLICATION OF POWER TO WHEEL
2 180/308
                 (0 OR, 2 XR)
       Class
                180 : MOTOR VEHICLES
        180/54.1
                      POWER
        180/305
                      .Including traction motor of kind driven by
                          noncompressible fluid received under pressure from a pum
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## 10677888 CLSTITLES

.. Having separate motor for each driven, 180/308 surface-engaging member

181/256 (2 OR, 0 XR)

181 : ACOUSTICS Class

SOUND-MODIFYING MEANS 181/175

.Muffler, fluid conducting type 181/212 ..With sound absorbing material 181/256

(0 OR, 2 XR) 2 181/272

181 : ACOUSTICS Class

SOUND-MODIFYING MEANS 181/175

.Muffler, fluid conducting type 181/212 ..With baffle or baffle structure 181/264

...Expansion chamber type 181/269

....Plural chambers 181/272

(2 OR, 0 XR) 188/154

Class 188 : BRAKES

FRICTIONAL VIBRATION DAMPER 188/381

.Fluid pressure 188/151R

.. Exhaust of propelling motor 188/154

(0 OR, 2 XR) 188/264F

188 : BRAKES Class

FRICTIONAL VIBRATION DAMPER 188/381 .Cooling and lubricating 188/264R .. Operating fluid cooling 188/264F

(0 OR, 2 XR) 188/273

188 : BRAKES Class

INTERNAL-RESISTANCE MOTION RETARDER 188/266

.Combined with mechanism retarded by brake 188/272

..Restricting exhaust from engine 188/273

188/295

(1 OR, 1 XR) 188 : BRAKES Class

INTERNAL-RESISTANCE MOTION RETARDER 188/266 .Using a rotary-type fluid damper 188/290

..Driving relatively moving element which 188/293

causes flow of brake fluid

....Comprising rectilinearly reciprocating 188/295

piston

188/62 (2 OR, 0 XR)

188 : BRAKES Class

188/2R VEHICLE

188/33 .Railway

..On track 188/62

(1 OR, 1 XR) 188/71.6

188 : BRAKES Class

188/67 ROD

.Axially movable brake element or housing 188/71.1

therefor

..With means for cooling brake 188/71.6

(0 OR, 2 XR) 2 192/219

192 : CLUTCHES AND POWER-STOP CONTROL Class

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10677888 CLSTITLES
         192/215
                        TRANSMISSION AND BRAKE
         192/218
                        .Motor vehicle
         192/219
                        ..Transmission control affects brake
 2 192/3.3
                  (1 OR, 1 XR)
         Class 192 : CLUTCHES AND POWER-STOP CONTROL
         192/3.21 VORTEX-FLOW DRIVE AND CLUTCH
192/3.28 Including drive-lockup clutch
192/3.29 .Having fluid-pressure operator
         192/3.3
                       ...With auxiliary source of pressure
 2 192/3.31
                 (1 OR, 1 XR)
         Class 192: CLUTCHES AND POWER-STOP CONTROL
         192/3.21 VORTEX-FLOW DRIVE AND CLUTCH
192/3.28 .Including drive-lockup clutch
192/3.31 .Having speed-responsive operator
 2 303/125
                 (0 OR, 2 XR)
         Class 303 : FLUID-PRESSURE AND ANALOGOUS BRAKE SYSTEMS
         303/121
                      SPEED-CONTROLLED
         303/125
                        .Automatic braking including speed governor or
                           hydraulic retarder
2 303/13
                  (1 OR, 1 XR)
         Class
                 303 : FLUID-PRESSURE AND ANALOGOUS BRAKE SYSTEMS
         303/13
                       MULTIPLE CONTROL
   303/155
                 (0 OR, 2 XR)
         Class 303 : FLUID-PRESSURE AND ANALOGOUS BRAKE SYSTEMS
         303/121
                      SPEED-CONTROLLED
         303/155
                       .Braking pressure demand or braking force
                           desire
2 310/76
                 (0 OR, 2 XR)
        Class 310 : ELECTRICAL GENERATOR OR MOTOR STRUCTURE
         310/10
                   DYNAMOELECTRIC
         310/40R
                      .Rotary
        310/66
                       ..With other elements
        310/75R
                       ...Drive mechanism
        310/76
                       ....Brake and clutch
        7 (2 OR, 0 XR)
Class 310: ELECTRICAL GENERATOR OR MOTOR STRUCTURE
2 310/77
                    DYNAMOELECTRIC
        310/10
        310/40R
                     .Rotary
        310/66
                       ..With other elements
                     ...Drive mechanism
        310/75R
        310/77
                       ....Brake
2 477/110
                 (0 OR, 2 XR)
                 477 : INTERRELATED POWER DELIVERY CONTROLS,
        Class
                         INCLUDING ENGINE CONTROL
        477/34
                     TRANSMISSION CONTROL
        477/107
                      .Engine controlled by transmission
        477/110
                       .. Responsive to transmission output condition
2 477/185
                 (0 OR, 2 XR)
                477 : INTERRELATED POWER DELIVERY CONTROLS,
```

#### 10677888 CLSTITLES INCLUDING ENGINE CONTROL 477/182 BRAKE CONTROL . Sensed condition responsive control of engine 477/183 of brake 477/184 ..Brake 477/185 ...And engine 2 477/71 (0 OR, 2 XR) Class 477 : INTERRELATED POWER DELIVERY CONTROLS, INCLUDING ENGINE CONTROL 477/34 TRANSMISSION CONTROL 477/70 .With clutch control 477/71 ..And brake control 477/86 (0 OR, 2 XR) 477 : INTERRELATED POWER DELIVERY CONTROLS, Class INCLUDING ENGINE CONTROL 477/34 TRANSMISSION CONTROL 477/70 .With clutch control 477/86 ..Clutch controlled 2 701/33 (1 OR, 1 XR) 701 : DATA PROCESSING: VEHICLES, NAVIGATION, AND Class RELATIVE LOCATION 701/1 VEHICLE CONTROL, GUIDANCE, OPERATION, OR INDICATION 701/29 .Vehicle diagnosis or maintenance indication ..Plural processors or external processor 701/33 2 701/48 (1 OR, 1 XR) 701 : DATA PROCESSING: VEHICLES, NAVIGATION, AND Class RELATIVE LOCATION VEHICLE CONTROL, GUIDANCE, OPERATION, OR 701/1 INDICATION .Vehicle subsystem or accessory control 701/36 .. Cooperative or multiple control (e.g., 701/48 suspension and braking) 2 701/53 (0 OR, 2 XR) 701 : DATA PROCESSING: VEHICLES, NAVIGATION, AND Class RELATIVE LOCATION 701/1 VEHICLE CONTROL, GUIDANCE, OPERATION, OR INDICATION 701/51 .Transmission control 701/53 ..And other vehicle control 701/87 (0 OR, 2 XR) Class

701 : DATA PROCESSING: VEHICLES, NAVIGATION, AND RELATIVE LOCATION VEHICLE CONTROL, GUIDANCE, OPERATION, OR 701/1 INDICATION 701/70 .Indication or control of braking, acceleration, or deceleration 701/82 .. Antispin, traction control, or drive slip control 701/87 ...Control of transmission torque